

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-3. (Canceled)
4. (Currently Amended) An electrode structure comprising:
a transparent electrode including ZnO; and
an Mg-doped ZnO film ~~formed on~~ disposed on a light emission side of an outer surface of the electrode that is opposite to a substrate of a semiconductor device,
wherein the electrode is a component of ~~disposed on a~~ the semiconductor device.
5. (Currently Amended) An electrode structure comprising:
a transparent electrode including ZnO; and
an Mg-doped ZnO film ~~formed on~~ disposed on a light emission side of an outer surface of the electrode that is opposite to a substrate of a semiconductor device,
wherein the electrode is a component of ~~disposed on a~~ the semiconductor device, and
the semiconductor device includes GaN.
6. (Previously Presented) The electrode structure of Claim 4, wherein the Mg-doped ZnO film overlies an upper surface of the electrode.
7. (Canceled)
8. (Previously Presented) The electrode structure of Claim 4, wherein a first metal pattern is formed on the Mg-doped ZnO film.

9. (Previously Presented) The electrode structure of Claim 4, wherein the electrode is disposed on a semiconductor layer of the semiconductor device, and a second metal pattern is formed on the semiconductor layer.

10. (Previously Presented) The electrode structure of Claim 4, wherein the Mg-doped ZnO film improves acid resistance of the transparent electrode.

11. (Previously Presented) The electrode structure of Claim 4, wherein the electrode is disposed on a semiconductor layer of the semiconductor device, and the semiconductor layer is formed on a substrate.

12. (Canceled).

13. (Currently Amended) A light emitting device comprising:
a semiconductor layer formed on a substrate of a semiconductor device;
a ZnO transparent electrode formed on the semiconductor layer; and
an Mg-doped ZnO film ~~formed on~~ disposed on a light emission side of an outer surface of the ZnO transparent electrode that is opposite to the substrate,
wherein the semiconductor layer comprises a GaN system semiconductor layer.

14. (Currently Amended) A light emitting device comprising:
a semiconductor layer formed on a substrate of a semiconductor device;
a ZnO transparent electrode formed on the semiconductor layer; and
an Mg-doped ZnO film ~~formed on~~ disposed on a light emission side of an outer surface of the ZnO transparent electrode that is opposite to the substrate,
wherein the semiconductor layer comprises an n-type GaN system semiconductor layer formed on the substrate, an emission layer formed on the

n-type GaN system semiconductor layer, and a p-type GaN system semiconductor layer formed on the emission layer.

15. (Previously presented) The light emitting device of Claim 13, wherein the Mg-doped ZnO film overlies an upper surface of the ZnO transparent electrode formed on the semiconductor layer.

16. (Canceled).

17. (Previously presented) The light emitting device of Claim 13, wherein a first metal pattern is formed on the Mg-doped ZnO film.

18. (Previously presented) The light emitting device of Claim 13, wherein a second metal pattern is formed on the semiconductor layer.

19. (Previously presented) The light emitting device of Claim 13, wherein the Mg-doped ZnO film improves acid resistance of the light emitting device.

20-25. (Canceled).

26. (New) The electrode structure of Claim 4, wherein the semiconductor layer is formed on the substrate that is different from the semiconductor layer.